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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,931	11/25/2003	Robert Hartmann	64646.2	9623
24347	7590	08/09/2005	EXAMINER	
HUNTON & WILLIAMS LLP 1601 BRYAN STREET ENERGY PLAZA - 30TH FLOOR DALLAS, TX 75201			LAU, HOI CHING	
			ART UNIT	PAPER NUMBER
			2636	

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/722,931

Applicant(s)

HARTMANN ET AL.

Examiner

Hoi C. Lau

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/25/04, 6/6/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1- 12 have been examined.

Election/Restrictions

2. Applicant's election with traverse of claims 1-12 in the reply filed on November 25, 2003 is acknowledged. The traversal is on the ground(s) that the inventions are not distinct. This is not found persuasive because the specification discloses alternative embodiment having inductive and coupling factor. See page 3, paragraphs 44 –45 and page 4, paragraph 73.

The requirement is still deemed proper and is therefore made FINAL.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "differentiating circuit" in **claim 6**, "micro-controller" in **claim 7**, "voltage transmission circuit" in **claim 9**, and "switching controller" in **claim 10**, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. Figure 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction

of the following is required: In **claim 9**, the voltage transmission circuit: is not shown in the original disclosure.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 – 2, 4-7 and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Steffens, Jr. (U.S. 6,025,783).

Regarding **Claim 1**, Steffens, Jr. teaches a system comprises a sensor that interrogates the condition of the seat belt buckle by a change inductance. This sensor is a combination of remote switch 28 (Fig. 1), tag circuit 32 (Fig. 1). The tag circuit includes an antenna for transmitting a tag signal indicative of the switch state, which corresponds to the output of the switch mechanism (column 2, lines 42-61 and column 4, lines 5-26).

As to **Claim 2**, Steffens's system is arranged an inductor 29 which is a multi-turn conductor loop (Fig. 1 and column 2, lines 15-18).

As to **Claim 4**, Steffens shows the conductor loop is planar (Figure 1).

As to **Claims 5 and 7**, it is inherent that Steffens system includes an oscillation circuit with a micro-controller (Figure 1 and column 4, lines 27-35).

As to **Claim 6**, it is inherent that Steffens has a differentiation circuit or else the system would not operate.

As to **Claim 9**, Steffens shows that the sensor is part of a voltage transmission circuit (Fig. 1 and 2).

As to **Claim 10**, Steffens' system is inherent that the system include a switching controller for recognition of a voltage or else the system would not able to detect the voltage pass through the system.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steffens, Jr. (U.S. 6,025,783) in view of Teodorescu (U.S. 5,986,549).

As to **Claim 3**, Steffens' system meets all the limitation of claims except it fails to show the conductor loop is applied on a printed circuit.

Teodorescu's sensor teaches a sensor includes a planar spiral winding formed as a printed circuit (Fig. 3 and column 4, lines 46-62).

It would have been obvious to one of ordinary skill in the art at the time the invention to integrate the conductor loop on a printed circuit because the conductor loop

would be easier to associate with other electronic component or circuitry on a circuit board within a compact space.

8. **Claims 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Steffens, Jr. (U.S. 6,025,783) in view of Teodorescu (U.S. 5,986,549), in further view of Todd (U.S. 5,907,892).

The combination meets all the limitation of claims except it fails to show a leaf spring manufactured from a material selected from the group consisting of diamagnetic, paramagnetic and ferromagnetic.

Todd discloses a system teaches a leaf spring manufactured from metal (column 3, lines 64-67 and column 4, lines 1-4).

It would have been obvious to one of ordinary skill in the art at the time metal is a well-known type of magnetic material.

9. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over Todd (5,907,892) in view of Steffens, Jr. (U.S. 6,025,783).

Regarding **Claim 11**, Todd's system teaches the seat buckle comprises:

A seat belt buckle carrier; a seat belt tongue carrier ; an ejector; a locking component (see abstract and Fig. 1 and 2).

However, it fails to shows a seat buckle include a device for recognizing the locked condition of a seat belt buckle comprising a sensor that directly interrogates the condition of the seat belt buckle by a change in inductance.

Steffens's device shows a sensor is associated with the seat belt buckle (see claim 1 for rejection).

It would have been obvious to one of ordinary skill in the art at the time to integrate a sensor with the seat buckle because it would provide the lock/unlock condition of the seat buckle for both driver and passenger for safety purpose.

10. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over Todd (5,907,892) in view of Steffens, Jr. (U.S. 6,025,783), in further view of Husby et al. (U.S. 5,960,523).

The combination meets all the limitation of claim except it fails to show the material of seat buckle tongue.

Husby's device teaches the buckle tongue is using ferromagnetic material (column 6, lines 20-23).

One of ordinary skill in the art could manufacture the buckle tongue with any kind of metal to satisfy the magnetic and long lasting purpose.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Czank (U.S. 5,526,556) teaches a buckle for vehicle seat comprises a base for receiving first and second tongues. A pivotable latch plate is mounted on the base and is pivotable between a first position connecting the first and second tongues to the base and a second position permitting the first and second tongues to disconnect from the base. Arbogest et al. (U.S. 5,966,784) shows a device for indicating the condition of a seat buckle which use a Hall effect device that is exposed to a magnetic field having flux lines extending in a first direction relative to the

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Hall effect device if a seat tongue is not locked in a buckle. Husby et al. (U.S. 6,079,744) teaches a device to detect seat buckle status where a seat belt buckle and latch indicating system employs a seat buckle with a Giant Magnetoresistive (GMR) sensor space from a magnet above a gap through which a ferromagnetic latch protrudes. Conaway (U.S. 6,002,325) teaches a seat belt status alerting unit for a seat belt having a connectable buckle and tongue, particularly for use in the supervision of children riding in a vehicle.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoi C. Lau whose telephone number is (571)272-8547. The examiner can normally be reached on M- F 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on (571)272-2981. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HCL


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